

Supplementing Your Diet Vitamins, Minerals and Beyond

The world of dietary supplements is getting more and more complicated. People aren't just taking vitamins and minerals anymore. Now, things like glucosamine, saw palmetto, black cohosh and ginkgo biloba are crowding onto shelves beside old standbys like vitamin C, calcium and iron. How do you sort through it all?

Dietary supplements include a broad range of vitamins, minerals, herbs and other substances meant to improve upon your diet. They can come as pills, capsules, powders and liquids.

The U.S. Food and Drug Administration, which regulates dietary supplements, treats them more like foods than like drugs. Dr. Paul M. Coates, director of NIH's Office of Dietary Supplements (ODS), says, "Dietary supplements are generally regarded as safe based on a long history of human use, unless proven otherwise. By contrast, drugs are not assumed to be safe until extensive testing has been done to prove their safety."

Supplements can play an important role in your health. Some doctors advise patients to take a multivitamin-mineral supplement to make sure they're getting enough of all the nutrients they need. While this may provide some insurance, Carol Haggans, a consultant with ODS, cautions, "People shouldn't feel they can make up for an unhealthy diet by taking a multivitamin-mineral supplement." A combination of all the vitamins and minerals together in foods provide the greatest health benefit, she says. "In general, if you eat a healthy diet, you shouldn't need

to supplement it with extra nutrients."

However, some people might need more of certain nutrients. Doctors often advise women of child-bearing age to take folic acid, for example. Many people don't get enough calcium. According to some surveys, 44% of boys and 58% of girls age 6-11 don't get enough—and the numbers get even higher as people age. It's probably best to eat 2-3 servings per day of calcium-rich foods like dairy products. But if you have trouble eating dairy products because they upset your stomach and you don't get enough calcium in other foods, a supplement might help.

Since some supplements may help you, it's easy to go a step farther and think that taking more would be even better. This can cost a lot and may not provide the benefit you expect. It can also be risky.

"Almost all of the nutrients have tolerable upper intake levels—the amount it's recommended you stay under each day," Haggans says. Amounts above these levels can be toxic. Too much vitamin A, for instance, can cause birth defects, liver problems, weak bones and nervous

system disorders. Too much calcium can cause kidney problems and block your ability to use other minerals in your diet.

NIH has several studies under way to look at whether high doses of certain supplements can prevent disease. For example, NIH's National Cancer Institute is funding the Selenium and Vitamin E Cancer Prevention Trial (SELECT) to see if selenium and vitamin E can help prevent prostate

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Wise Choices

Before Using Dietary Supplements

- **Safety first.** Some products can be harmful when taken in high amounts, for a long time or along with certain other substances. Don't use a dietary supplement along with, or instead of, a prescription medicine without first consulting your health care provider.
- **Don't chase the latest headline.** Sound health advice is based on research over time, not a single study touted in the media.
- **Learn to spot false claims.** If something sounds too good to

be true, it probably is.

- **"Natural" doesn't mean safe.** Natural ingredients may interact with medicines, be dangerous for people with certain health conditions or be harmful in high doses. For example, peppermint tea is generally safe to drink, but you can get a toxic dose of oil extracted from peppermint leaves.
- **Does it work?** Resist pressure to buy something on the spot. Ask a health care professional for advice or check credible sources like the web sites listed in this article to find out if the product is safe and does what it says it does.

—Adapted from material provided by
NIH's Office of Dietary Supplements

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cancer. But this isn't an area you should experiment in by yourself.

Dr. Coates explains that, for the most part, supplement "megadoses" haven't been tested. "Absence of evidence of harm isn't the same as evidence of absence of harm," he says. "In many cases we just don't know."

It's not difficult to get high doses of certain nutrients, either. Breakfast cereals have long been fortified with vitamins and minerals. Now, many other fortified products are crowding onto grocery shelves as consumers buy into the idea that more is better. Look at the foods and supplements you're eating together to make sure that your total intake of any one

nutrient isn't too high. If you're concerned, talk to a health care provider such as a doctor, pharmacist or registered dietitian or check the nutrient recommendation information at the ODS web site.

Dietary supplements beyond traditional vitamins and minerals have also become popular. In one study, about 19%, or 1 out of every 5 people surveyed, used natural products such as echinacea, ginseng, glucosamine and ginkgo biloba. But since they're regulated more like foods than drugs, in a lot of cases we don't know how or even if these supplements work as their supporters claim.

"Be prepared to ask questions,"



Dietary Supplements:

[ods.od.nih.gov/
Health_Information/Health_Information.aspx](http://ods.od.nih.gov/Health_Information/Health_Information.aspx)

[nccam.nih.gov/health/
supplements.htm](http://nccam.nih.gov/health/supplements.htm)

[www.nlm.nih.gov/
medlineplus/druginfo/herb_All.html](http://www.nlm.nih.gov/medlineplus/druginfo/herb_All.html)

[www.niapublications.org/
agepages/supplements.asp](http://www.niapublications.org/agepages/supplements.asp)

Dietary Supplement Regulation:

[www.cfsan.fda.gov/~dms/
ds-faq.html](http://www.cfsan.fda.gov/~dms/ds-faq.html)

Dr. Coates advises. "These products are available on drug store shelves, supermarket shelves and vitamin store shelves in packaging that makes them look like drugs, but they aren't regulated like drugs. Consumers have to realize that the drug rules don't apply."

Haggans adds, "People assume if it's on the shelf it must be safe and we must know a lot about it, but that's not necessarily the case."

The National Center for Complementary and Alternative Medicine (NCCAM) takes the lead at NIH in funding studies of supplements beyond traditional vitamins and minerals. They now have dozens of studies under way to test their safety and effectiveness.

In the meantime, if you're considering taking a supplement, consult with your health care provider. Some supplements can interfere with other medications, so have a list ready of all the medications and supplements you're taking or considering.

If you decide that a particular dietary supplement is right for you, make sure you're buying a reliable brand. There are independent laboratories that test supplement products for quality and purity. "There are companies whose products are made to very high standards," Dr. Coates says, "but that's not always the case." ■

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Make the Kidney Connection

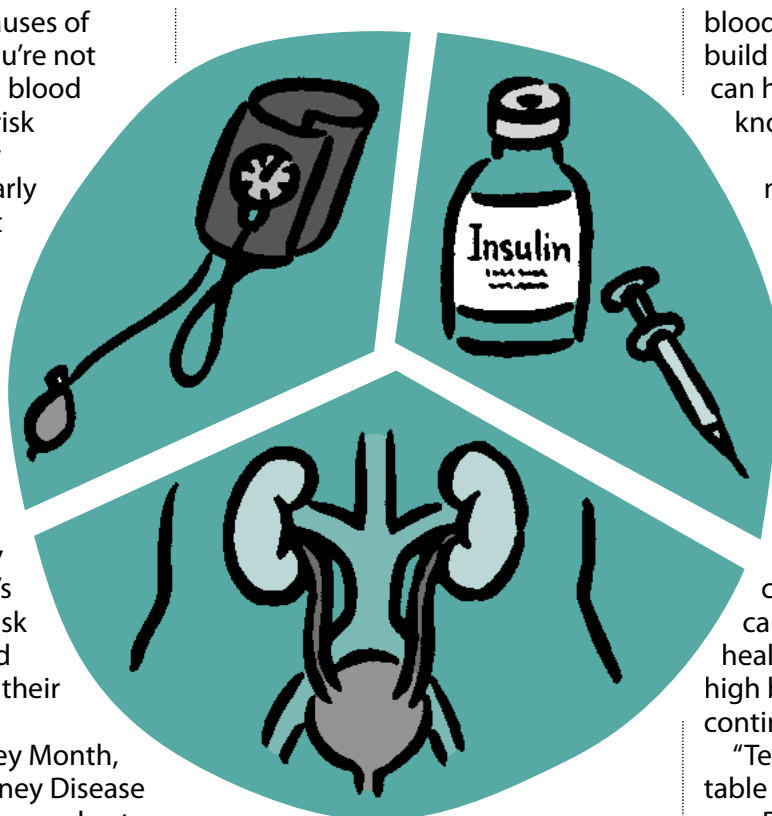
Millions at Risk for Kidney Disease

Do you know the main causes of kidney disease? If not, you're not alone. Diabetes and high blood pressure are the leading risk factors for chronic kidney disease, which affects nearly 20 million Americans. Yet many people with diabetes and high blood pressure haven't made "the kidney connection" and aren't aware of their risk.

Dr. Josephine P. Briggs, a kidney specialist with NIH's National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) says, "It's important for people at risk to get their kidneys tested and take steps to protect their kidney function."

March is National Kidney Month, and NIDDK's National Kidney Disease Education Program wants people at risk for kidney disease to know about the importance of regular testing and the availability of treatments to prevent or slow kidney failure. If you have diabetes or high blood pressure, you should talk to your doctor about getting tested. Untreated, kidney disease can lead to kidney failure. Then, your only options are dialysis or a kidney transplant.

"Don't wait for symptoms," Briggs says. "Kidney disease strikes without warning. It often has no symptoms until just before the kidneys fail. Peo-



ple find themselves in the emergency room or on dialysis before they even know they have a problem."

Your kidneys are bean-shaped organs located near the center of your back. Tiny blood vessels in your kidneys work to filter your blood to remove wastes. Diabetes and high blood pressure can damage these

blood vessels, causing wastes to build up in your body. The damage can happen very slowly, without you knowing it's going on.

Kidney failure affects both men and women from all racial and ethnic groups. However, African Americans, Hispanics and Native Americans have higher rates of diabetes and high blood pressure, putting them at greater risk for developing kidney disease.

However, kidney failure can be prevented or delayed. If a test shows that you have kidney disease, medicines called ACE inhibitors and ARBs can help keep your kidneys healthy. Those with diabetes and high blood pressure should also continue to control these conditions.

"Ten years ago, dialysis was inevitable for people with kidney disease," says Briggs. "But because of treatments available today, it's a different story. That's why it's so important for those at risk to get tested." ■



www.nkdep.nih.gov
or 1-866-4 KIDNEY



Questions for your doctor

- Based on my medical and family history, am I at risk for kidney disease?
- Do my blood and urine tests show signs of kidney disease?
- How can I protect my kidneys and prevent kidney failure?



Wise Choices Protect Your Kidneys

Here's what you can do to protect your kidneys:

- **Control your diabetes and high blood pressure.** Continuing to control these conditions can help reduce the stress on your heart and blood vessels, which contributes to kidney disease.
- **Talk to your health care provider.** Discuss your risk for kid-

ney disease, testing and how you can keep your kidneys healthy.

- **Get tested.** Ask your doctor to test your blood and urine for signs of kidney disease. The tests are the only way to know for sure if you have kidney disease.
- **Get treated.** If tests show that you have kidney disease, medicines are available to help slow its progression or prevent kidney failure altogether. Your doctor may also want you to see a kidney specialist.

Health Capsules

Healthier 'Soul Food' Helps With Diabetes

Soul Food Light, a program designed to encourage healthy eating for diabetic African Americans living in rural areas, successfully helped people adapt to their diabetes. By modifying their diets without drastically changing their lifestyle, they lowered their body weight and improved their blood sugar control and blood cholesterol levels.

The 10-year study, which was supported by NIH's National Institute of

Nursing Research (NINR), involved 49 participants, most of whom were female, obese and diabetic. The participants attended classes on making healthy meals with reduced fat, making healthy choices when eating away from home and developing personal health goals. Teaching methods included demonstrations, story-telling and role modeling. Many classes finished with a shared meal made using low-fat ingredients

and modified cooking techniques. Discussion groups and telephone follow-ups from a nurse case manager were also part of the study.

Soul Food Light participants learned how to use healthier ingredients to lower their fat intake and lose weight. As a result, they were able to improve their diabetes control without giving up familiar foods.

If you'd like help preparing healthier meals without sacrificing the foods you love to eat, ask your doctor or nurse to recommend a dietitian who can help you. You can also take time to explore the many "cooking light" books and magazines available. ■



ndep.nih.gov/diabetes/MealPlanner

ndep.nih.gov/diabetes/pubs/Buffer_AfricanAm.pdf

ndep.nih.gov/diabetes/pubs/FamReu_AfricanAm.pdf

Don't Ignore Smell and Taste Problems

Problems with smell and taste can make your life miserable. They can also be dangerous.

It's normal for smell and taste to gradually decline as you age. But according to NIH's National Institute on Deafness and Other Communication Disorders (NIDCD), more than 250,000 Americans visit their doctor each year because of a smell or taste disorder. Adults over the age of 60 are most likely to have a problem, with loss of smell occurring more frequently than loss of taste.

Smell and taste play an important part in our lives. The loss of one or both could put you in a potentially hazardous situation. Smell lets us know when something is wrong in our environment, such as when food is spoiled or when there's a gas leak. Taste protects us by helping us select healthy foods and avoid those that might be bad for us. (Many plants that are toxic have a bitter taste, for example). Smell and taste disorders can also lead to a reduced desire to eat, and, in some cases, lead to depression.

Colds and other upper respiratory infections, chronic sinusitis and head injuries are the most common causes of smell disorders. Taste disorders may be caused by aging, overall poor health, taking certain medications and possibly infections. NIDCD-funded researchers are now trying to understand exactly why these things bring about smell and taste disorders. Why does aging take its toll on smell and taste, and why do certain medications make the problem worse? Eventually a better understanding may lead to new treatments for people with these disorders.

It's important to realize that many cases of smell and taste loss are treatable, and some may even go away by themselves. If you have a problem, don't hesitate to talk to your health care provider about it. ■



www.nidcd.nih.gov/health/smelltaste
or 1-800-241-1044
(TTY: 1-800-241-1055)



Featured Web Site

5 to 9 a Day

5aday.gov

Fruits and vegetables should be the foundation of a healthy diet. Yet most people don't eat enough of them. Men should shoot for 9 servings of fruits and vegetables a day; women should aim for 7. See how big a serving is, read about why you should eat more fruits and vegetables, and find easy ways to add more to your diet.

From NIH's National Cancer Institute and several other organizations.

